AMENDMENTS TO THE CLAIMS

1. (Currently amended) An apparatus for resource migration, comprising a storage system having

a plurality of storage servers with a set of resources partitioned thereon, said storage servers having a load monitor process capable of communicating with other load monitor processes for generating a measure of loading on respective ones of the plurality of servers;

a resource migration process for transferring a resource from one of said plurality of servers to another of said plurality of servers in response to said measure of loading; ~~and~~

a write-detect process which:

(i) detects when a resource write request applies to a resource that is in the process of being moved from a first server to a second server, and which in response to such resource write request writes copies of the resource to both of said first and second server; and

(ii) in response to a write failure on the second server, restarts the migration process for the resource to ensure that the write request is propagated to the second server.

2. (Original) The apparatus of Claim 1, wherein said servers are equivalent to each other.

3. (Original) The apparatus of Claim 1, wherein said resources are selected from the group consisting of data blocks, program files, multimedia files, applications, and database files.

4. (Original) The apparatus of Claim 1, wherein said measure of loading reflects both a storage system load and a server load.

5. (Original) The apparatus of Claim 1, wherein said storage system is a Storage Area Network.

6. (Original) The apparatus of Claim 1, wherein the load monitor includes a process to determine whether a server is servicing a disproportionate share of the client requests being handled by a server group.

7. (Original) The apparatus of Claim 1, wherein the resource migration process includes a block data migration process.

8. (Original) The apparatus of Claim 1, further including a routing table for tracking resources maintained on the system.

9. (Previously presented) The apparatus of Claim 1, wherein a pointer to a resource is maintained during an access operation to provide continuous data access.

10. (Original) The apparatus of Claim 1, wherein the load monitoring process monitors one or more of network traffic load, I/O request load, storage traffic pattern type.

11. (Canceled).

12. (Currently amended) The apparatus of Claim 1, wherein the resource migration process divides the resource being moved into smaller subresources, and wherein the write-detect process:

(i) detects when a resource write request applies to a subresource that is in the process of being moved from a first server to a second server, and in response to such resource write request writes copies of the subresource to both of said first and second server; and

(ii) wherein restarting the migration comprises restarting the migration for the subresource.

13. (Canceled).

14. (Currently amended) A process for moving resources across a storage system having a plurality of storage servers with a set of resources partitioned thereon, comprising the steps of

monitoring a load on a server and communicating with other load monitor processes for generating a measure of loading on respective ones of the plurality of servers;

transferring, as a function of the measured loads, a resource from one of said plurality of servers to another of said plurality of servers in response to said measure of loading; [and]

detecting when a resource write request applies to a resource that is in the process of being moved from a first server to a second server, and in response to such resource write request writing copies of the resource to both of said first and second server; and

in response to a write failure on the second server, restarting the migration process for the resource to ensure that the write request is propagated to the second server.

15. (Original) The process of Claim 14, wherein said servers are equivalent to each other.

16. (Original) The process of Claim 14, measuring a load includes measuring a storage system load and a server load.

17. (Original) The process of Claim 14, including the further step determining whether a server is servicing a disproportionate share of the client requests being handled by a server group.

18. (Original) The process of Claim 14, wherein the resource migration process includes a block data migration process.

19. (Original) The process of Claim 14, further including maintaining a routing table for tracking resources maintained on the system.

20. (Original) The process of Claim 14, wherein the load monitoring process monitors one or more of network traffic load, I/O request load, storage traffic pattern type.

21. (Previously presented) The process of Claim 14, further including maintaining a pointer to a resource during an access operation to provide continuous data access.

22. (Canceled)

23. (Currently amended) The process of Claim 14, further including:

dividing the resource being moved into smaller subresources; ~~and~~

detecting with the write-detect process when a resource write request applies to a subresource that is in the process of being moved from a first server to a second server, and in response to such resource write request writing copies of the subresource to both of said first and

second server; and

wherein restarting the migration comprises restarting the migration for the sub resource.

24. (Canceled)